6-1 Polynomial Functions

In pairs with the use of a calculator.

1. Cut out and equally divide the equations to be graphed.
2. After looking at all the graphs, sort the graphs into at least three categories. Write the criteria you used to create each category on the blank squares.
3. Discuss with the whole class what you and others used as criteria.
4. Now sort by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List the equations in each group.

Group #1 Group #2 Group #3

1. Back in pairs, estimate the x-intercepts of each graph.
2. Finally, make a conjecture.  Compare the number of x-intercepts of each graph and the greatest exponent found in its equation.

What is the relationship?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Use your text pg. 307 as a resource to answer the following questions.

Write each polynomial in standard form. Then classify it by degree and by number of terms.

a)

b)

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